

REMARKS/ARGUMENTS

Claims 47-50, 75-80 and 125-146 are pending. By this Amendment, claims 47 and 78 are amended and new claims 125-146 are added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Claims 47-50 and 75-80 were rejected under 35 U.S.C. §103(a) over Venegas (U.S. Patent No. 5,074,297). This rejection is respectfully traversed.

Independent claim 47 is directed to a breathable gas mask arrangement comprising a mask shell, a gusset, a cushion and headgear. The gusset portion is constructed and arranged such that it can expand and contract to alter a distance between the mask shell and the cushion. An interior of the gusset portion is exposed to the supply of pressurized breathable gas and has a projected area on the user's face A_g which is greater than an area A_c of contact of the cushion with the user's face. A change in total force of the mask on the face F_m is generally directly proportional at a given operating pressure to a displacement of the mask shell towards the user's face from an initial seal position within a range of such mask shell displacement of about 6-25 mm. The projected area of the gusset is variable in accordance with alterations of the distance between the mask shell and the cushion.

Venegas does not teach or suggest this subject matter. For example, Venegas does not teach or suggest that the projected area of the gusset is variable in accordance with alterations of the distance between the mask shell and the cushion. As best shown in Figure 4, the projected area defined by the rear end 32 of the bellows-type piston assembly 14 is set at a fixed dimension such that it is not variable.

Dependent claims 48-50 define further features which are not taught or suggested by Venegas. For example, Venegas does not teach that the gusset portion includes a single gusset

portion having a flexible sidewall with a generally triangular cross-section when not exposed to the supply of pressurized breathable gas that balloons to a generally rounded cross-section when exposed to the supply of pressurized breathable gas. There is no teaching or suggestion that the bellows structure 14 shown in Figure 4 of Venegas has either a triangular cross-section or a rounded cross-section depending on exposure to pressurized breathable gas.

With regard to independent claim 75, Venegas does not teach or suggest a suspension mechanism exposed to the pressurized air to provide a first axial spring force to the cushion proportional to a pressure of the air, the first axial spring force being at least 30% greater than a second axial spring force on the cushion due to the pressurized air acting directly on the cushion. Venegas is silent in regard to either a first axial spring force or a second axial spring force, as recited in claim 75. The first axial spring force is defined in claim 75 as that force of the suspension mechanism that is provided to the cushion and is proportional to the pressure of the pressurized air. By contrast, Venegas discloses that the piston 12 is an expandable bellows as shown in Figures 1, 2 and 4. Figure 3 illustrates an embodiment in which the piston is a low friction or frictionless diaphragm which provides good sealing properties. Venegas further states that in addition to bellows and diaphragms, other piston structures may be used which have low friction and are able to expand in response to pressure. See column 3, lines 20-33. Therefore, Venegas teaches away from the suspension mechanism providing first axial spring force to the cushion which is proportional to the pressure of the air. Venegas teaches the use of low friction or frictionless embodiments that would not include a first axial spring force.

Dependent claims 76 and 77 are patentable by virtue of their dependency on claim 75, in addition to the further features they recite. For example, Venegas does not teach the use of a flexible sidewall that is generally triangular in cross-section when not exposed to the pressurized

air and balloons to a generally rounded cross-section when exposed to the pressurized air, for reasons discussed above.

With respect to independent claim 78, Venegas does not teach or suggest a suspension mechanism supporting the cushion and having a second variable projected area on the user's face greater than the first projected area on the face by at least thirty percent. As discussed above, Venegas does not teach or suggest that its projected area (defined by wall 32 in Figure 4) is variable, but is rather a fixed dimension.

Claims 79 and 80 are patentable by virtue of their dependency on claim 78, in addition to the further features they recite. For example, Venegas does not teach or suggest that the second projected areas between 200-400% greater than the first projected area.

Reconsideration and withdrawal of the rejection are respectfully requested.

New claims 125-146 are presented for the Examiner's consideration.

In view of the above amendments and remarks, Applicants respectfully submit that all the claims are patentable and that the entire application is in condition for allowance.

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Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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